

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A tapered optical fiber bundle, comprising:
a plurality of input fibers formed into a fiber bundle, the fiber bundle being adiabatically tapered, and heavily-fused into an induced cross-sectional shape with minimally deformed cores and no interstitial space between the input fibers, wherein prior to fusing the input fibers in the bundle are arranged such that the cross-sectional shape has an encircling radius smaller than can be obtained with hexagonal packing.
2. (Original) The tapered optical fiber bundle of claim 1, wherein the input fibers are any of multimode, single mode, multiclad and cladding pumped fibers.
3. (Currently Amended) An optical fiber device, comprising:
a tapered fiber bundle having a plurality of input fibers, adiabatically tapered, and heavily-fused into an induced compact shape with minimally deformed cores and no interstitial space between the input fibers at a cleaved end, wherein prior to fusing the input fibers in the bundle are arranged such that the cross-sectional shape has an encircling radius smaller than can be obtained with hexagonal packing; and
an output element coupled to the cleaved end.
4. (Original) The optical fiber device of claim 3, wherein the output element is another tapered fiber bundle.
5. (Original) The optical fiber device of claim 3, wherein the output element is a single optical fiber.
6. (Original) The optical fiber device of claim 5, wherein the single optical fiber is a multimode optical fiber.

7. (Original) The optical fiber device of claim 6, wherein at least one of the input fibers is terminated to reduce back reflections.

8. (Original) The optical fiber device of claim 5, wherein the single optical fiber is a double clad fiber.

9. (Original) The optical fiber device of claim 5, wherein the single optical fiber is pre-tapered.

10. (Original) The optical fiber device of claim 3, wherein the output element is fusion spliced to the cleaved end.

11. (Original) The optical fiber device of claim 9, wherein a spliced junction between the tapered fiber bundle and the output element is post-tapered.

12. (Original) The use of the optical fiber device of claim 3 as any one of an optical combiner, an optical splitter, a cladding-pumped fiber laser, and a cladding-pumped optical amplifier.

Claims 13-26. (Withdrawn)

27. (Currently Amended) A star coupler, comprising:
a tapered fiber bundle formed in the midsection of a plurality of fibers, adiabatically tapered, and heavily-fused into an induced compact shape with minimally deformed cores and no interstitial space between the fibers, wherein prior to fusing the fibers in the bundle are arranged such that the cross-sectional shape has an encircling radius smaller than can be obtained with hexagonal packing, such that the plurality of fibers form input and output leads on each side of the fused bundle.

28. (Currently Amended) The star coupler of claim [[28]] 27, wherein at least one of the input leads is terminated to reduce back reflections.

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 2. This sheet, which includes Figs. 1-2, replaces the original sheet including Figs. 1-2.

Attachment: Replacement Sheet (Figs. 1 and 2)